

AMENDMENTS TO THE CLAIMS

Please amend the Claims as follows:

1-60. (Cancelled)

61-65. (Not entered)

66-70. (Cancelled)

71. (Currently Amended) A method of identifying the presence of human mammary carcinoma in mammary tissue from a human, said method comprising determining whether a gene that encodes a protein comprising amino acid sequence SEQ ID NO:1 is amplified in said tissue, wherein amplification is present in said tissue when the level of occurrence of the gene in [[the]] said tissue is greater than the level of occurrence of the gene in normal mammary tissue, wherein amplification of the gene in said mammary tissue from said human relative to normal human mammary tissue is indicative of the presence of human mammary carcinoma in said mammary tissue from said human.

72. (Previously Presented) The method of Claim 71, wherein said gene comprises nucleic acid sequence SEQ ID NO:2.

73. (Previously Presented) The method of Claim 71, wherein said gene encodes a protein comprising the protein encoded by the Bam HI DNA fragment contained in the pUC12 subclone in the E. coli strain deposited under ATCC accession number 53408.

74. (Previously Presented) The method of Claim 71, wherein said gene comprises the nucleic acid sequence of the Bam HI DNA fragment contained in the pUC12 subclone in the E. coli strain deposited under ATCC accession number 53408.

75. (Previously Presented) A method of identifying the presence of human mammary carcinoma in mammary tissue from a human, said method comprising analyzing for amplification of DNA of a gene that encodes a protein comprising amino acid sequence SEQ ID NO:1, wherein amplification is present in said tissue when the amount of the DNA of the gene in said tissue is greater than the amount of the DNA of the gene in normal mammary tissue and wherein amplification of the DNA of the gene in said mammary tissue from said human is indicative of the presence of human mammary carcinoma in said mammary tissue from said human.

76. (Previously Presented) The method of Claim 75, wherein said gene comprises nucleic acid sequence SEQ ID NO:2.

77. (Previously Presented) The method of Claim 75, wherein said gene encodes a protein comprising the protein encoded by the Bam HI DNA fragment contained in the pUC12 subclone in the E. coli strain deposited under ATCC accession number 53408.

78. (Previously Presented) The method of Claim 75, wherein said gene comprises the nucleic acid sequence of the Bam HI DNA fragment contained in the pUC12 subclone in the E. coli strain deposited under ATCC accession number 53408.

79-87. (Canceled)

88. (Previously Presented) The method of Claim 75, wherein the step of analyzing comprises contacting DNA of the human mammary tissue with a nucleic acid probe that hybridizes to the DNA of the gene that encodes a protein comprising amino acid sequence SEQ ID NO: 1, measuring the amount of the probe that hybridizes to the DNA of the human mammary tissue, and determining that the DNA of the gene is amplified in the mammary tissue from the human when the amount of probe hybridizing to the DNA of the mammary tissue is greater than the amount of probe hybridizing to DNA in normal mammary tissue.

89. (Previously Presented) The method of Claim 75, wherein the step of analyzing comprises isolating DNA from the human mammary tissue and contacting the DNA with a nucleic acid probe that hybridizes to the DNA of the gene that encodes a protein comprising amino acid sequence SEQ ID NO:1, measuring the amount of the probe that hybridizes to the DNA from the human mammary tissue, and determining that the DNA from the gene is amplified in the mammary tissue from the human when the amount of probe hybridizing to the DNA in the mammary tissue is greater than the amount of probe hybridizing to DNA in normal mammary tissue.

90. (Canceled)

91. (Canceled)

92. (Previously Presented) The method of Claim 75, wherein analyzing for amplification of DNA of a gene that encodes a protein comprising amino acid sequence SEQ ID NO:1 is performed by Southern blot analysis.

93. (Previously Presented) The method of Claim 75, further comprising determining whether the gene is overexpressed in the mammary tissue from the human, wherein the overexpression of the gene provides further indication of the presence of human mammary carcinoma in the mammary tissue from the human.

94. (Previously Presented) The method of Claim 93, wherein determining whether the gene is overexpressed in the mammary tissue from the human comprises measuring the level of mRNA encoding a protein comprising amino acid sequence SEQ ID NO:1 in mammary tissue from the human and comparing the measured level to the level of the mRNA occurring in normal mammary tissue.

95. (Previously Presented) The method of Claim 93, wherein determining whether the gene is overexpressed in the mammary tissue from the human comprises measuring the level of a protein comprising amino acid sequence SEQ ID NO:1 in the mammary

tissue from the human and comparing the measured level to the level of the protein occurring in normal mammary tissue.

96. (Previously Presented) The method of Claim 95, wherein the level of the protein is measured by reacting an antibody prepared against said protein with said human mammary tissue.